



Name: Robert Welter

Teaching content area(s): Middle School Science

School: Holmes Junior High

Extern host site: George Wyth State Park

Part I: Overview of Business

- Hartman Reserve State Park
- Park started in 1940, renamed to current name in 1956
- Park features fishing, kayaking, boating, birding, 5 ½ miles of multipurpose trails, and over 50 campsites

Part II: Job Specifics

- George Wyth is a State Park and its function is constantly divided between the desires of the people using the park and its function as a wildlife sanctuary
- Park staff must be aware of the needs of patrons (campsites, well-maintained and safe natural areas, etc), but also keep areas sufficiently “wild” to effectively facilitate wildlife habitat

Part III: Introduce the Problem

- How can we maximize the amount of natural habitat (shortgrass prairie) within the park, alter the habitat to increase the population of desired (native) species, but still maintain sufficient open space for visitors to enjoy?
- How can we encourage the growth of desired species (oak trees), but maintain an attractive and diverse tree line throughout the park?

Part IV: Background

- Effect of biotic and abiotic factors on populations (invasive species, light availability, soil quality, rainfall)
- Methods of measuring populations
- Plant identification (oak trees, invasive plants)

Part V: Business Solution

- Park staff work closely with Hawkeye Community College professors, who bring environmental education students to the park and fell trees that surround native oak trees
- Park staff have been working with the local tallgrass prairie research station to begin a pollinator garden and prairie. The prairie has been underway for a number of years, but a well-labeled pollinator garden at the entrance of the park will provide visitors with a more immersive and informational experience within the park

Part VI: Student Solutions

- Students will be introduced to the various opinions of DNR officials and community members regarding George Wyth State Park
- They will be introduced to various biotic and abiotic factors that influence the growth of native species (invasive species, light availability, etc)
- They will be asked to develop a solution to satisfy the desires of park staff and community members in regards to invasive species removal, encouragement of native species, and the reclamation of some grass seeded recreation areas to shortgrass prairie